

# 2011 Military Health System Conference

## Preventive Cardiology Clinic:

An Integrated Multi-Disciplinary Approach to Risk Factor  
Modification

*The Quadruple Aim: Working Together, Achieving Success*

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January 2011



# Disclaimer



- The views expressed herein are those of the authors and do not reflect the official policy or position of Brooke Army Medical Center, the U.S. Army Medical Department, the U.S. Army Office of the Surgeon General, the Department of the Army, Department of Defense or the U.S. Government.

# The Quadruple Aim: The MHS Value Model



## Readiness

Ensuring that the total military force is medically ready to deploy and that the medical force is ready to deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions.

## Experience of Care

Providing a care experience that is patient and family centered, compassionate, convenient, equitable, safe and always of the highest quality.



## Population Health

Reducing the generators of ill health by encouraging healthy behaviors and decreasing the likelihood of illness through focused prevention and the development of increased resilience.

## Per Capita Cost

Creating value by focusing on quality, eliminating waste, and reducing unwarranted variation; considering the total cost of care over time, not just the cost of an individual health care

# Strategic Imperatives and Performance Measures



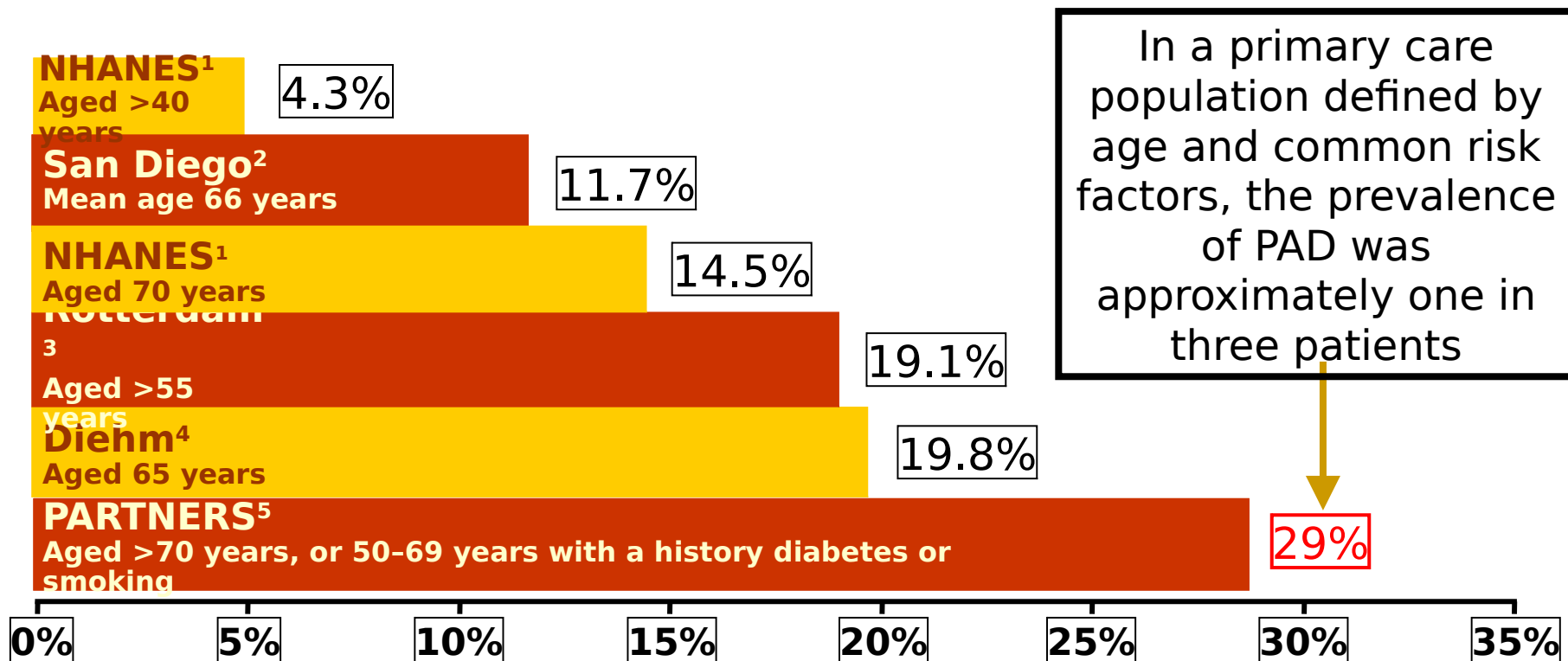
- Population Health
  - Engage patients in healthy behaviors
- Experience of Care
  - Deliver evidence-based care
- Per Capita Cost
  - Manage health care costs
- Learning & Growth
  - Foster innovation

# Why a Preventive Cardiovascular Clinic?



- Increased recognition of cardiovascular and peripheral vascular disease:
  - Often missed
  - High prevalence
  - High cardiovascular risk
  - Poor quality of life
  - Robust evidence-based screening and treatment guidelines for PAD, lipid disorders and preventive screening

# Prevalence of PAD



NHANES=National Health and Nutrition Examination Study;

PARTNERS=PAD Awareness, Risk, and Treatment: New Resources for Survival [program].

1. Selvin E, Erlinger TP. *Circulation*. 2004;110:738-743.

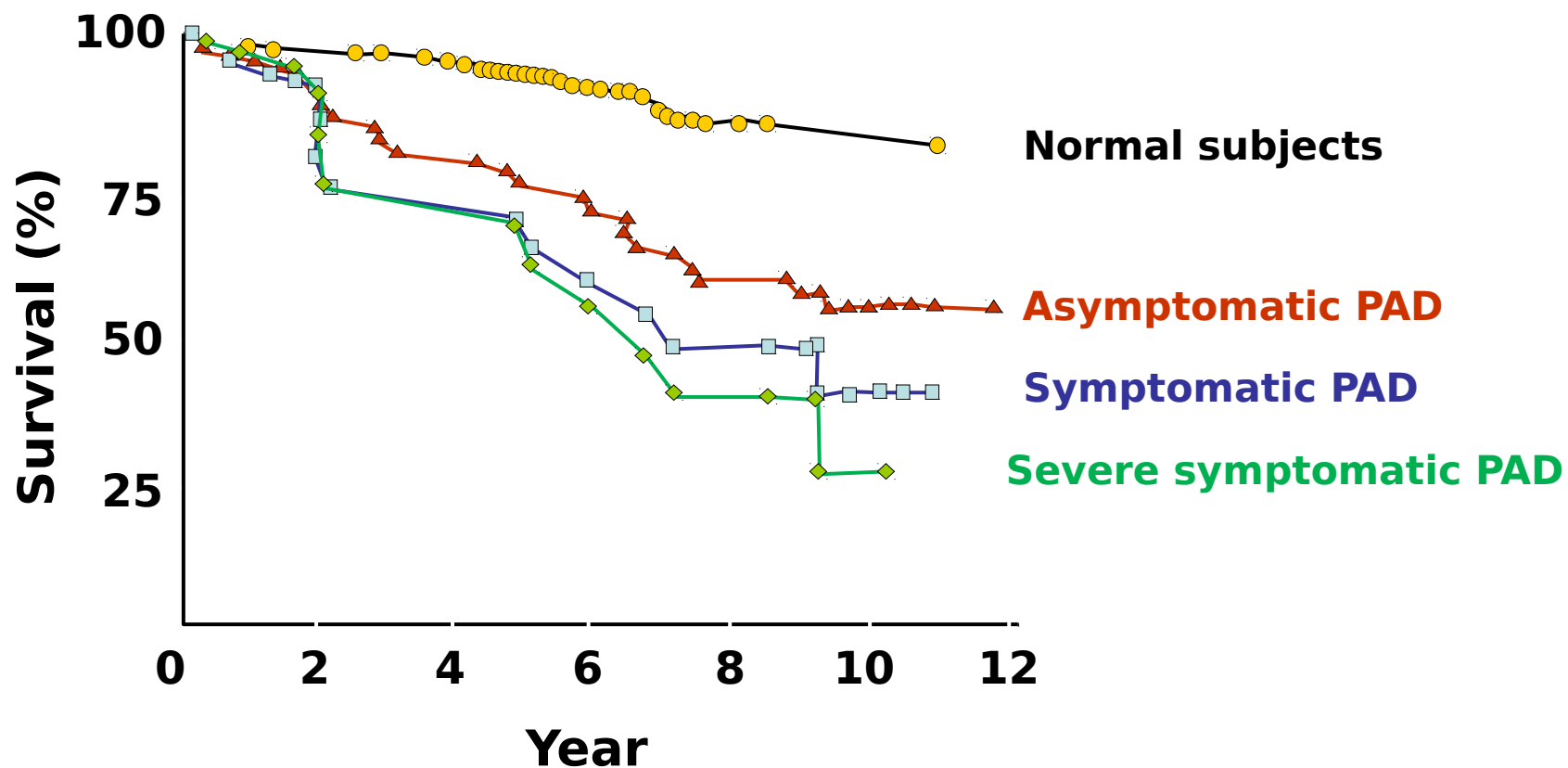
2. Criqui MH, et al. *Circulation*. 1985;71:510-515.

3. Diehm C, et al. *Atherosclerosis*. 2004;172:95-105.

4. Meijer WT, et al. *Arterioscler Thromb Vasc Biol*. 1998;18:185-192.

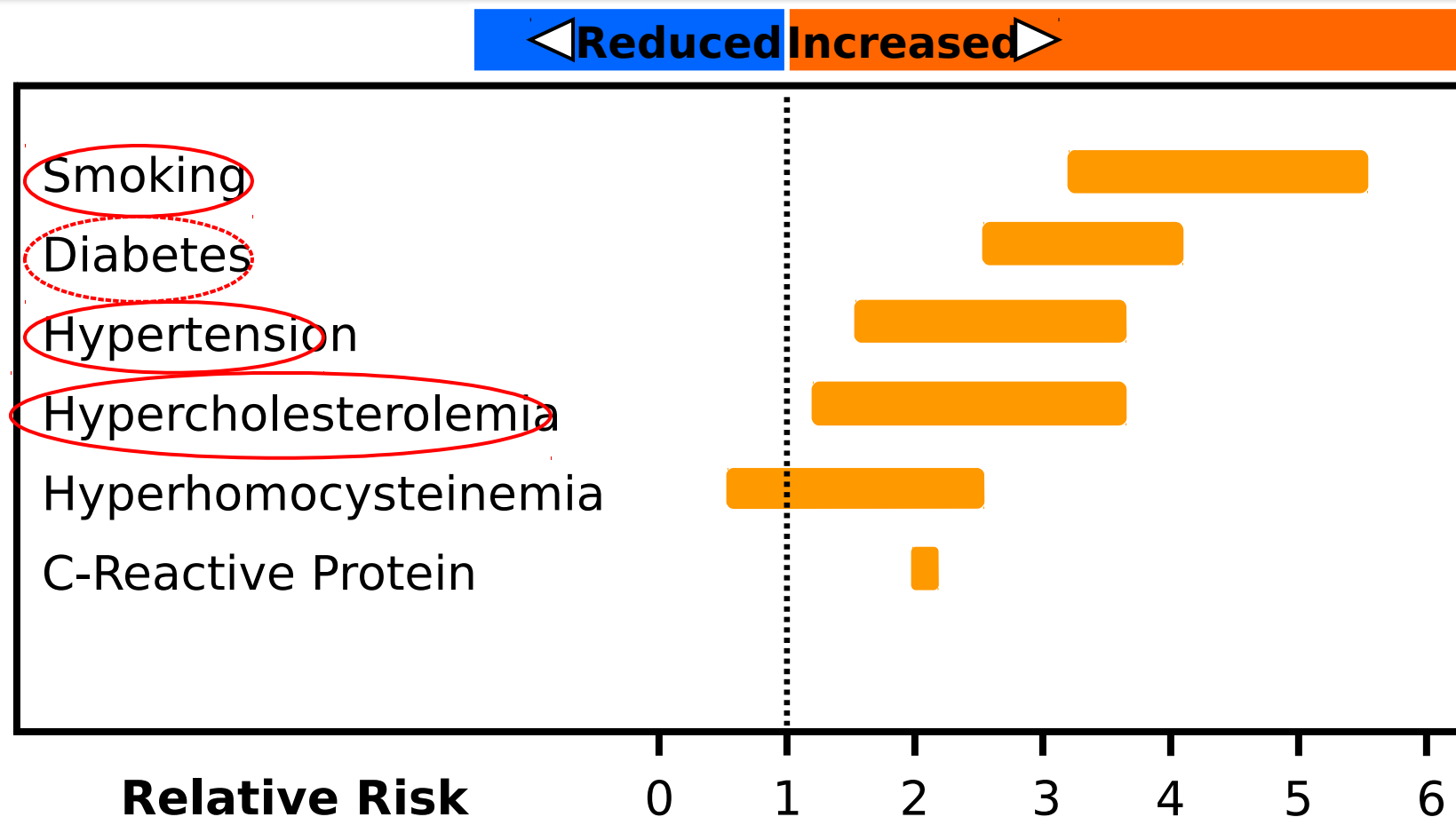
5. Hirsch AT, et al. *JAMA*. 2001;286:1317-1324.

# Survival in Patients With PAD



Criqui MH et al. *N Engl J Med*. 1992;326:381-386.

# Why Risk Factor Modification?





# Preventive Cardiology Clinic Vision



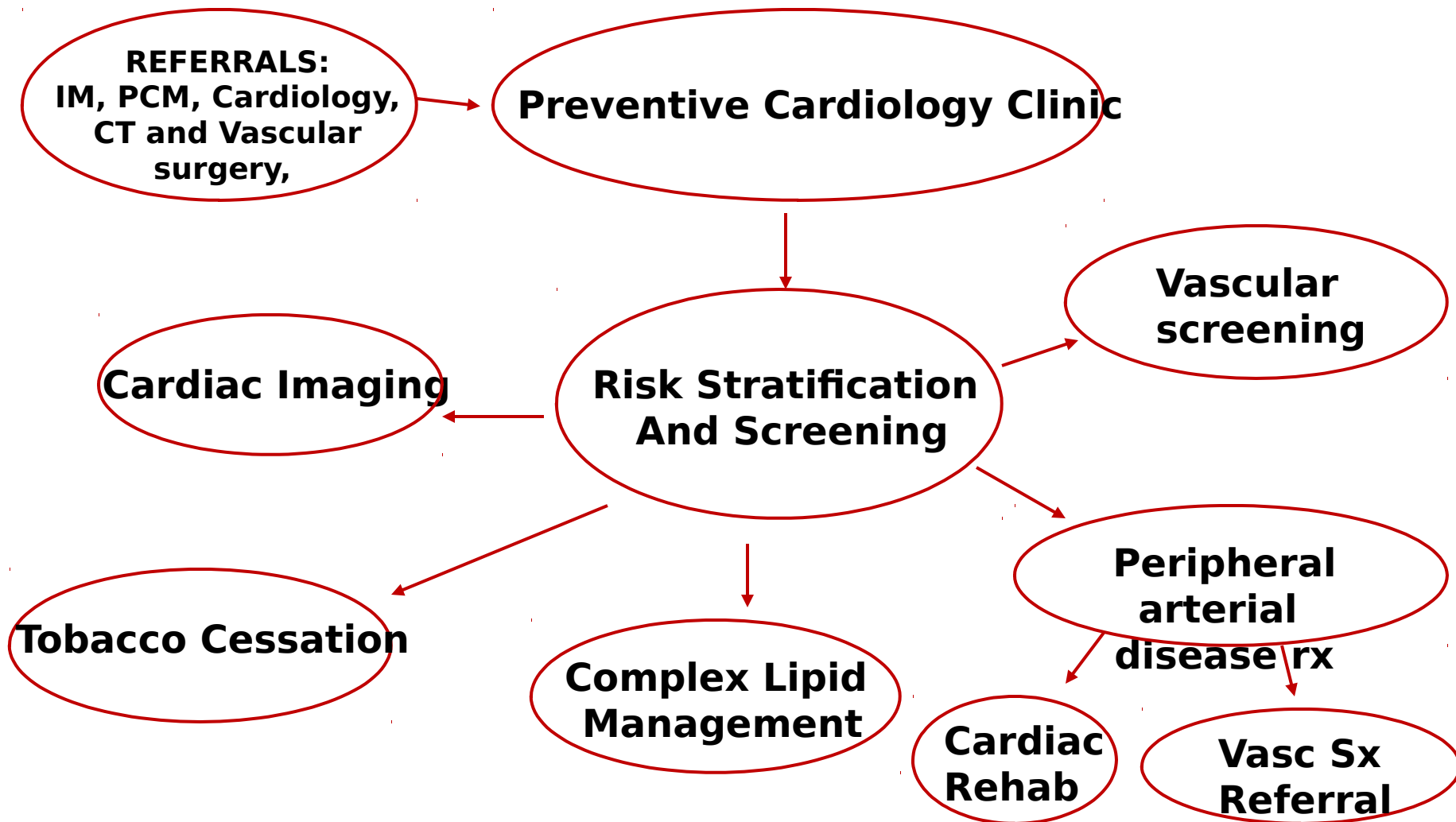
- Preventive Cardiology Clinic (PCC)
  - Coordination with Vascular Surgery, Cardiac Rehab, Nutrition, and Cardiac CT
  - Designed to enhance cardiovascular screening, medical management, exercise program and promote tobacco cessation and prevention
- Referral base/process
  - Internal Medicine, Primary Care, Cardiology, CT and Vascular surgery
  - Self referral/advertising
    - Captures population lost to civilian sector; improved access to screening and preventive services

# PCC Mission



- Improve ability to detect/treat all cardiovascular disease
- Aggressive early risk factor modification to evidence-based goals
  - Prevent progression
  - Provide medical management according to national guidelines
  - Improve quality of life and survival
- Monitor and refer for symptoms that require additional evaluation or intervention

# PCC Structure



# PCC Performance Measures



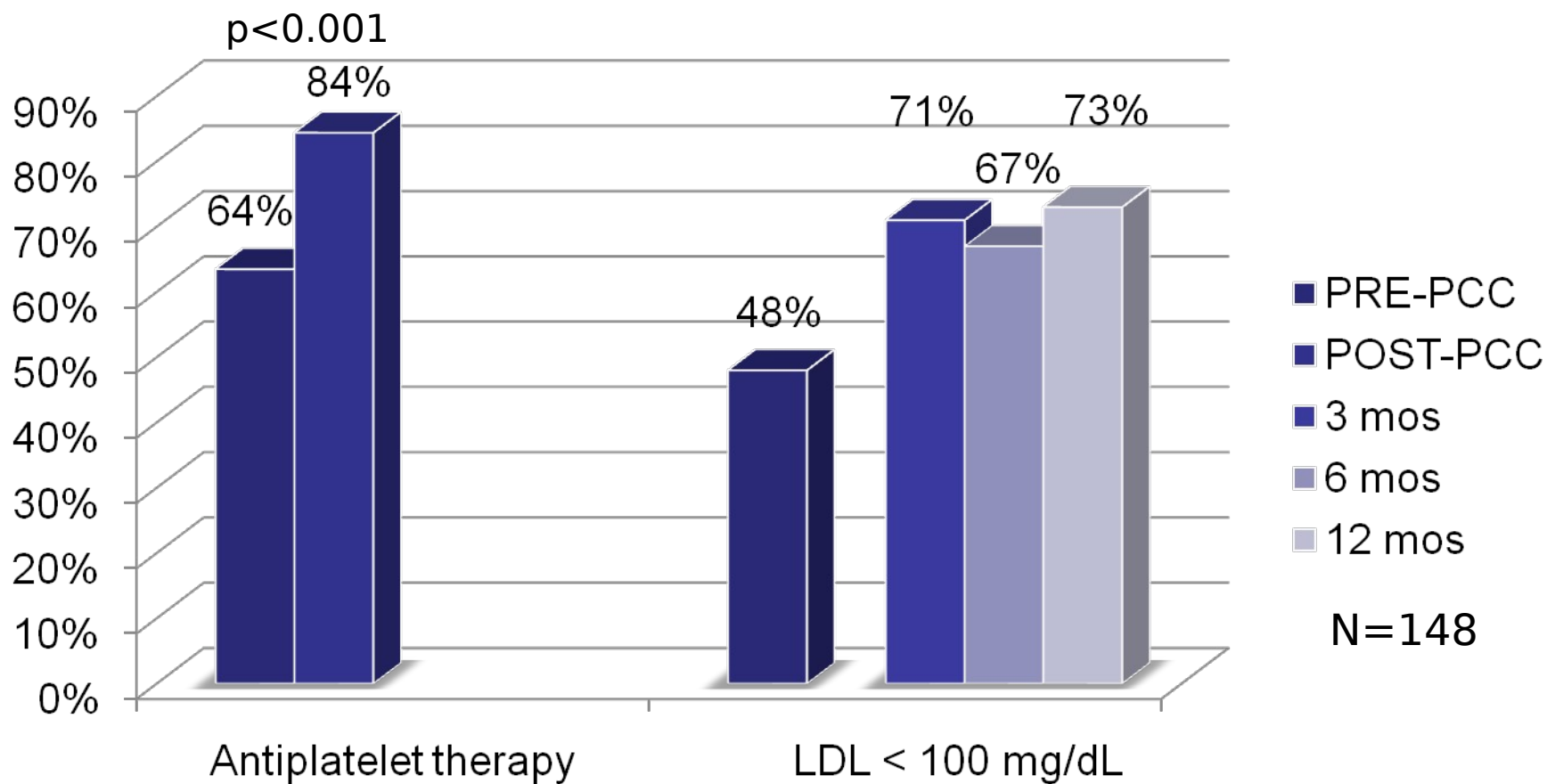
- Risk assessment
  - Estimate risk of coronary heart disease based on Framingham 10-yr risk and symptom screening
  - Screening with coronary CT calcium scoring
  - Additional testing as indicated (stress test, echo)
- Tobacco use cessation
  - Attendance, cessation and abstinence rates at 1, 6, and 12 months

# PCC Performance Measures (cont'd)

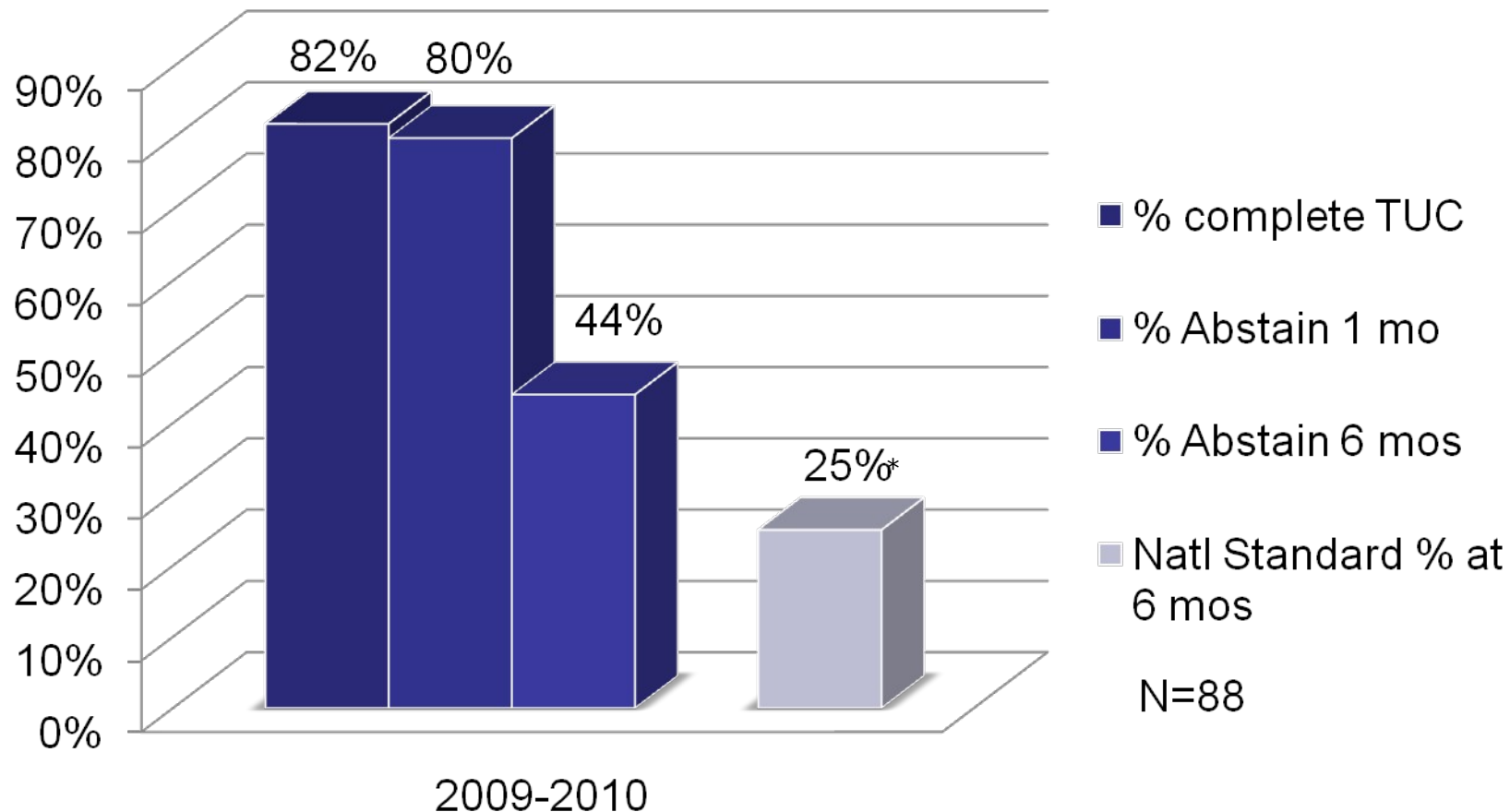


- Cholesterol management
  - Achievement of lipid treatment goals
    - LDL < 100 mg/dl
- Antiplatelet therapy
  - Assessment and initiation if indicated
- Peripheral arterial disease (PAD)
  - Screening ABIs
  - Referral to Vascular Surgery as indicated
  - Cardiac Rehab and improvement in functional capacity

# Antiplatelet & Lipid Treatment



# Tobacco Use Cessation Rates



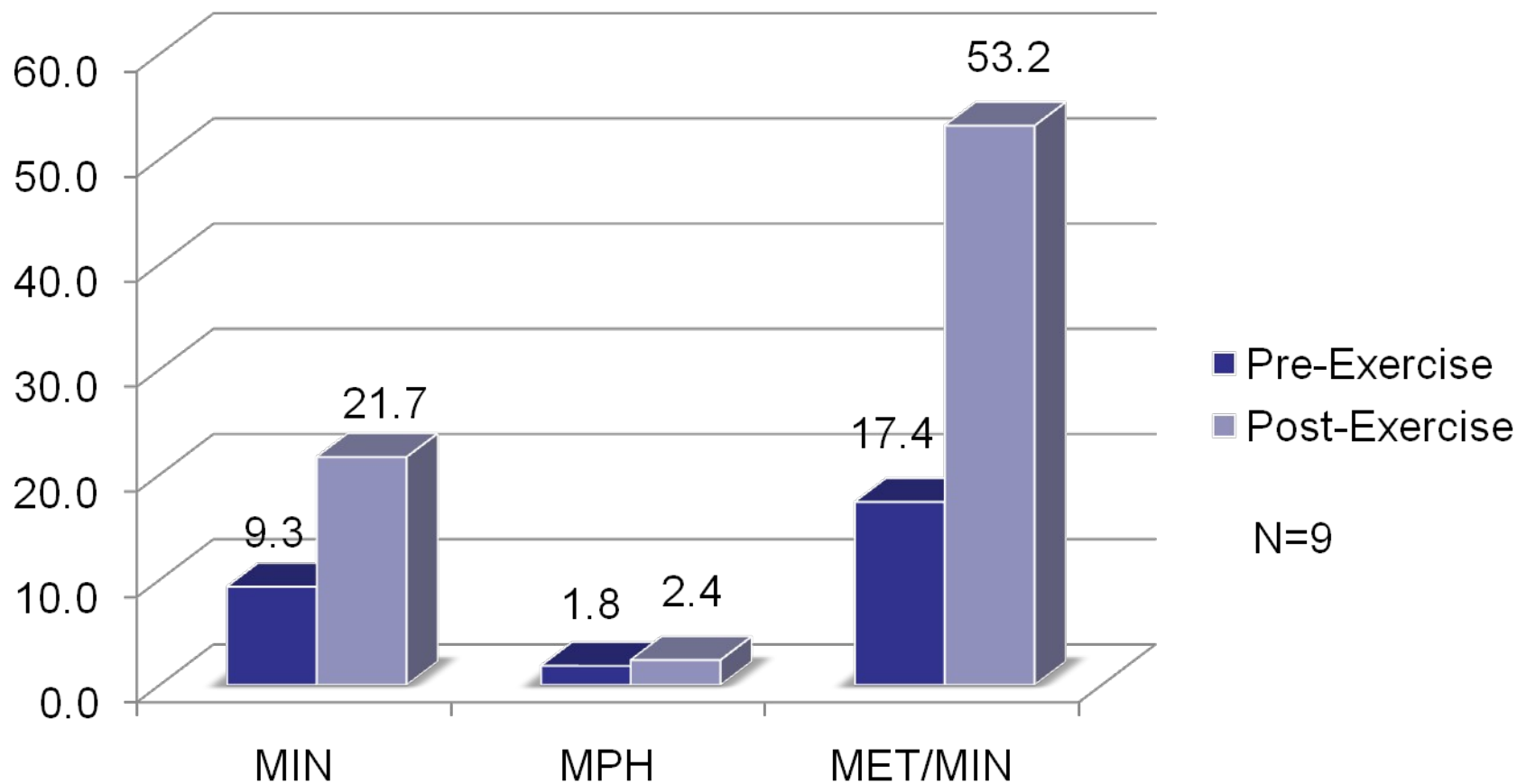
# Supervised Exercise Therapy



- Performed in Cardiac Rehab
- Frequency: 5 sessions/week (2 supervised)
- Type of exercise: treadmill to near-maximal claudication pain
- Length: > 3 months
- Results: 100-150% improvement in maximal walking distance and associated improvement in quality-of-life



# Improvement in Exercise Capacity



# Summary



- A multi-disciplinary approach and patient-centered design enhances participation and optimizes success.
- PCC demonstrated improved identification and screening of patients, improved implementation of preventive therapies and achievement of goals and improved quality of life.
- This concept could be replicated using existing resources in most military treatment facilities.

# Brooke Army Medical Center Team Members



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